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PEDANTICISM RUNS AMUCK

H. A. GLEASON

It is now seventeen years since the article* was published and for seventeen years I have considered a reply to it. At first I remained silent out of respect to my friend Alfred Rehder, who was unfortunately, and I suspect rather unwittingly concerned with it.

The title of the paper is misleading. Botanists who may at this point fear that they have been asked or will now be asked to learn a fourth name for this beautiful, valuable, and widely distributed tree may be at ease. The article leaves the name *Pseudotsuga taxifolia* unchanged and refers only to the author-citation for it, that is, to the botanists who are responsible for the name in the recommended form. Nevertheless it is significant that the authors betray in their title something of the growing tendency to convert the ordinary binomial system of nomenclature into a trinomial or quadrinomial system, in which the "authorities" constitute the third and fourth terms. Every teaching taxonomist still tells his students that the name of a species consists of two terms which together are sufficient to designate the species and at the same time show something of its place in the scheme of classification. The International Code, in the formation of which the authors played such a prominent part, still affirms the binomial system. But this growing tendency is often apparent.

Since the Kew Bulletin, as well as the original sources on which Sprague and Green base their conclusions, may not be

* SPRAGUE, T. A., AND M. L. GREEN. The botanical name of the Douglas Fir. *Kew Bulletin* **1938**: 79, 80. 1938.

generally accessible to American readers, the statements of the authors may be briefly summarized.

The first binomial given to the Douglas Fir was *Pinus taxifolia* by Lambert in 1803. Later the tree received two other specific epithets, *mucronata* from Rafinesque and *Douglasii* from Lindley. All three of these have been transferred to *Pseudotsuga*, resulting in three binomials, of which two must be synonyms and only one, if any, can be valid. All three have been in general use in American botany and forestry. Under prevailing rules of nomenclature, the oldest of these specific epithets must be used, provided it was valid when published and after its transfer produces a valid binomial.

The oldest epithet is actually invalid, the name *Pinus taxifolia* as used by Lambert being a later homonym of *Pinus taxifolia* as previously used by Salisbury. Under the International Code an invalid epithet can not be validly transferred. Therefore *Pseudotsuga taxifolia* (Lambert) Britton is also invalid. Apparently the next available epithet is *mucronata* and the valid name *Pseudotsuga mucronata* (Raf.) Sudworth. Sprague and Green, however, claim that the Douglas Fir was also named *Abies taxifolia* by Poiret in 1804 and that this name is validly published and transferable. They then proceed (on behalf of Rehder) to transfer this epithet, which is considerably older than those of Rafinesque and Lindley, to *Pseudotsuga*, giving us the same name with different authors, *P. taxifolia* (Poir.) Rehder.

Sprague and Green are expert in all the intricacies of modern nomenclatural etiquette and their interpretation of the rules, as applied to this particular case, may be accepted without question. In brief, the applicable rules are three:

1. An invalid epithet (*taxifolia* in *Pinus taxifolia* Lamb.) upon combination with another generic name (*Pseudotsuga*) produces an invalid binomial (*Pseudotsuga taxifolia* Britt.)

2. A later homonym (*Pseudotsuga taxifolia* Rehder) is not invalidated by an older one (*Pseudotsuga taxifolia* Britton) if both are based on the same type.

3. The invalidity of an epithet in one genus (*taxifolia* in *Pinus*, as used by Lambert) does not preclude its valid use in another genus, even for the same species, provided it is described there as new and not merely transferred.

These rules are the ones invoked by Sprague and Green and I agree with them completely. The sole question to be determined is whether Poiret described the Douglas Fir as a "new" species, thereby creating a valid and transferable specific epithet.

Lambert's description (1803) reads as follows:

Tab. 33.

27. *Pinus taxifolia*.

Nootka Fir.

Pinus taxifolia, foliis solitariis planis integerrimis, strobilis oblongis, antheris inflato-didymis.

Habitat ad Americae borealis oras occidentales.

Descriptio.

Habitus *P. canadensis*, at *folia* angustiora et paululum longiora, integerrima. Amenta mascula ovata, subsessilia, multiflora; antheris inflato-didymis, crista reflexa, minima.

The figure was taken from a specimen in the Banksian Herbarium, brought home by Mr. Menzies, by whom it was discovered on the Northwest coast of America, and who has favored me with the following particulars respecting this species.

In general habit this tree resembles *P. canadensis*, and attains considerable height and size. The *leaves* are also very like those of the species just mentioned, but narrower and their edges are entire, whereas the others are visibly serrated. The *inflorescentia* is much larger than in *P. canadensis* and there are more antherae. As for the *Cones*, I can give no account of them, those which were brought by Mr. Menzies having been unfortunately mislaid. That gentleman however informs me that they differ in their form from the cones of *P. canadensis*, and that they are longer.

During the single year after this publication no other specimen of the Douglas Fir was brought to Europe. In 1804 Poiret had occasion to write about trees and the only source of information on the Douglas Fir was Lambert's description and plate. It is conceivable that he borrowed the specimen from the Banks herbarium, but not probable, since England and France were not on good terms at that time. Poiret's description now follows, and the reader is advised to compare it carefully, clause by clause, with that of Lambert, remembering that the order of presentation is considerably changed.

15. Sapin à feuilles d'if. *Abies taxifolia*. Lambert.

Abies foliis solitariis, planis, integerrimis; strobilis oblongis, antheris inflato-didymis. Lambert, Descript. of Pin. pag. 51. tab. 33.

Cette espèce a de grands rapports avec le *Pinus canadensis* par son port, & même par l'élevation de son tronc. Ses rameaux sont un peu diffus, opposés

ou alternes; ses feuilles sont plus étroites & plus longues, très entières, glabres à leurs deux faces, planes, solitaires. Les chatons mâles sont ovales, presque sessiles, très entières, très chargés de fleurs; les antheres renflées & à deux longues; leur crête réfléchie & fort petite; on soup conne que les cones sont beaucoup plus longs que ceux du *Pinus canadensis*.

Cet arbre croît sur les côtes occidentales de l'Amérique septentrionale.

Careful comparison of the two descriptions will show that almost all information given by Poiret has been taken, usually by literal translation, from Lambert. There is a little additional matter, as "rameaux sont un peu diffus, opposés ou alternes," or "feuilles plus étroites, planes, solitaires," and this might have been taken from Lambert's plate. The only significant difference is the substitution of the generic name *Abies* for *Pinus*. It is not mere plagiarism; he cites Lambert's work accurately. It is merely the transfer of a specific epithet to a new generic position. *Transfer of an invalid specific epithet produces an invalid binomial*. If Lambert's *taxifolia* produced an invalid binomial when transferred to *Pseudotsuga* by Britton, then it also produces one when transferred to *Abies*.

Abies taxifolia, as used by Poiret, can not possibly be regarded as a "new" species. It is a transfer, if there ever was one. The basonym and its author are clearly stated, the description is a mere translation into French.

Was the epithet *taxifolia* ever used elsewhere in a description of the Douglas Fir as a "new" species? No such use is known to exist in the few years between its first and invalid appearance in 1803 and the publication of *mucronata* by Rafinesque. If such use was made of it at any later time, it would have resulted merely in an invalid synonym. The use of *taxifolia* as the specific epithet for the Douglas Fir is definitely and finally excluded, and the name of the tree is once again *Pseudotsuga mucronata*, the specific epithet by Rafinesque, the combination by Sudworth. Under that name it was known for many years in most American literature.—GREENWICH, CONN.